

**The GLOBE-O-Rama**  
**A Proficiency Practice Exam**  
**Test your GLOBE skills!**

Team Name: \_\_\_\_\_

Team Members: (3 max)\_\_\_\_\_

**Questions!!**

1. Lab - What color of shirt would you be wearing if it were soil color 7.5R 3/8?  
\_\_\_\_\_
2. Field - The latitude and longitude of the weather station here at the workshop:  
Latitude \_\_\_\_\_ Longitude \_\_\_\_\_
3. Field - At the weather station:  
The minimum temperature on the thermometer is: \_\_\_\_\_degrees
4. Field - As measured with your clinometer, how high above the ground is the marked tree ? \_\_\_\_\_ meters
5. Lab - The alkalinity of the water located at the station in our lab room is:  
\_\_\_\_\_
6. Lab - The pH of the soil sample located at the station in our lab room is:  
\_\_\_\_\_
7. Field - Your school building is 15 m high. You need to locate your weather station as close to the building as possible. How close to the building will the GLOBE protocol allow?\_\_\_\_\_ m
8. How many GLOBE schools are there presently in the world? \_\_\_\_\_
9. Field - Measure the precipitation pH.  
\_\_\_\_\_
10. Field - What cloud cover category would you enter for the sky?\_\_\_\_\_
11. Lab - What does it mean if one has a dissolved oxygen sample reading of 9-8?\_\_\_\_\_ see Teacher's Guide activity "What Lives Here"
12. Field - What amount of precipitation is shown in the rain gauge at our weather station?\_\_\_\_\_

13. Field - A MUC classification number of 1121 is what type of land cover?

\_\_\_\_\_

14. Field - What does it mean when you turn on the Magellan GPS instrument and see the 2D symbol on the screen with the coordinates? \_\_\_\_\_

\_\_\_\_\_

15. Field - How often does the protocol specify taking these data measurements?

Soil Moisture \_\_\_\_\_ Air temperature \_\_\_\_\_

Tree height \_\_\_\_\_ Water pH \_\_\_\_\_

16. Field - How many GLOBE atmospheric temperature data measurements are there? \_\_\_\_\_

17. Field - Proceed outside to the lawn, where you will find two flags placed in the ground. Measure the canopy cover and ground cover between these two flags and record your data below:

What is the MUC classification of the marked pixel? \_\_\_\_\_

Canopy cover: \_\_\_\_\_ % Ground cover - %brown \_\_\_\_\_ %green \_\_\_\_\_

What is the circumference of the marked tree? \_\_\_\_\_ cm

18. Lab - What picture is on the button that will take you to the GLOBE Scientific Visualizations? \_\_\_\_\_

19. Lab - If your school wished to conduct a joint research project with Mr. Bernd Tissler, of the Gymnasium Ohmoor School in Hamburg, Germany, how could the schools exchange their data? \_\_\_\_\_

\_\_\_\_\_

20. Lab - What is the pH of the liquid sample at the station in our lab room? \_\_\_\_\_ What are your low \_\_\_\_\_ and high \_\_\_\_\_ pH calibrations?

21. Lab - Assume you have obtained a soil profile shown in the soils room: with a soil auger:

a) What horizons (ex: 1, 2, 3, 4 etc.) do you see? \_\_\_\_\_

b) What is the depth range of horizon 2? \_\_\_\_\_

c) What are the characteristics of the bottom horizon? Evaluate color, texture, structure, & consistency

22. Lab - When did Tanzania sign the GLOBE agreement?
23. Lab - How many study sights can a school have?
24. Field - Name three GLOBE instruments that can be handmade.
25. Lab - What is the sample transparency?
26. Lab - What is the sample temperature?
27. Field - Why is it necessary to follow the GLOBE protocols?
28. Lab - What can registered and certified GLOBE schools do that no one else can do?
29. Field - What do we clean the rain gauge with if it gets dirty?
30. Field - What do you like best about GLOBE so far?
31. Lab - read the specific gravity and temperature of this solution SG\_\_\_\_\_
- Temp.\_\_\_\_\_. What is its salinity?
32. Lab - What is the conductivity of this solution?
33. Lab - What is the dissolved oxygen content?
34. Lab - What is the nitrate concentration?
35. Lab - Calculate the bulk density. Wet weight 289 g, dry weight 270 g, container weight 25 g, rock weight 45 g, rock volume 30 ml, container volume 200 ml

36. Lab - Calculate water content with above information.
37. Computer - Who is the Country Coordinator for Korea?
38. Computer - Who is the Globe Atmosphere Scientist? What is her E-mail address?
39. Computer - What was the maximum temperature in Hamilton, Australia on Tuesday June 24<sup>th</sup>, 1997?
40. Computer - What picture is on the button that takes you to the visualizations?
41. Computer - On the soil temperature data entry sheet, how many soil samples can you enter data for?
42. You have Globe-Mail! Who is it from?

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